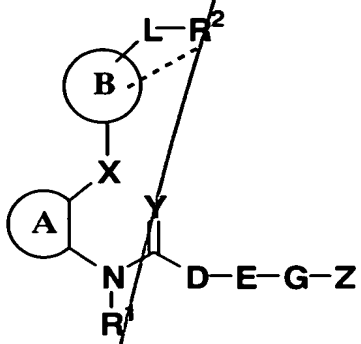
CLAIMS

1. A Compound of the following formula, or a salt thereof:



(I)

wherein Ring A represents an optionally-substituted aromatic ring; Ring B represents an optionally-substituted cyclic hydrocarbon group; Z represents an optionally-substituted cyclic group; R^1 represents a hydrogen atom, an optionally-substituted hydrocarbon group, an optionally-substituted heterocyclic group, or an acyl group; R^2 represents an optionally-substituted amino group; D represents a chemical bond or a divalent group; E represents -CO-, -CON(R^a)-, COO-, -N(R^a)CON(R^b)-, -N(R^a)COO-, -N(R^a)SO_2-, -N(R^a)-, -O-, -S-, -SO- or -SO_2- (in which R^a and R^b each independently represent a hydrogen atom or an optionally-substituted hydrocarbon group); G represents a chemical bond or a divalent group; L represents (1) a chemical bond or (2) a divalent hydrocarbon group optionally having from 1 to 5 substituents selected from;

(i) a C_{1-6} alkyl group,

(ii) a halogeno-C_{1-6} alkyl group,

(iii) a phenyl group,

(iv) a benzyl group,

(v) an optionally-substituted amino group,

(vi) an optionally-substituted hydroxy group, and

(vii) a carbamoyl or thiocarbamoyl group optionally substituted by:

<1> a C_{1-6} alkyl group,

<2> an optionally-substituted phenyl group, or

<3> an optionally-substituted heterocyclic group,

and optionally interrupted by -O- or -S-; X represents an oxygen atom, an optionally-oxidized sulfur atom, an optionally-substituted nitrogen atom, or an optionally-substituted divalent hydrocarbon group; Y represents two hydrogen atoms, an oxygen atom or a sulfur atom; .... means that R^2 may be bonded to the atom on Ring B to form a ring.

2. A Compound as claimed in claim 1, wherein L is an alkylene group optionally interrupted by -O- and optionally substituted by a C_{1-6} alkyl group.

3. A Compound as claimed in claim 1, wherein L is a C_{1-6} alkylene group.

4. A Compound as claimed in claim 1, wherein R^2 is (1) an unsubstituted amino group, (2) a piperidyl group, or (3) an amino group optionally having one or two substituents selected from (i) a benzyl group, (ii) a C_{1-6} alkyl group

optionally substituted by an amino or phenyl group, (iii) a (mono- or di-C_{1-6} alkyl)-carbamoyl or -thiocarbamoyl group, (iv) a C_{1-6} alkoxy-carbonyl group, (v) a C_{1-6} alkyl-sulfonyl group, (vi) a piperidylcarbonyl group, and (vii) a C_{1-6} alkyl-carbonyl group optionally substituted by a halogen atom or an amino group.

5. A Compound as claimed in claim 1, wherein R^2 is an unsubstituted amino group.

6. A Compound as claimed in claim 1, wherein A is an optionally-substituted benzene or pyridine ring.

7. A Compound as claimed in claim 1, wherein B is an optionally-substituted benzene ring.

8. A Compound as claimed in claim 1, wherein E is $-CON(R^a)-$.

9. A Compound as claimed in claim 1, wherein X is an oxygen atom.

10. A Compound as claimed in claim 1, wherein D is a C_{1-6} alkylene group.

11. A Compound as claimed in claim 1, wherein G is a C_{1-6} alkylene group.

12. A Compound as claimed in claim 1, wherein G is an optionally-substituted divalent hydrocarbon group, and Ring B along with R^2 does not form a nitrogen-containing hetero ring.

13. A Compound as claimed in claim 1, wherein E is $-CON(R^a)-$, G is an optionally-substituted divalent hydrocarbon

group, Y is two hydrogen atoms, R^1 is an acyl group, and Ring B along with R^2 does not form a nitrogen-containing hetero ring.

14. A Compound as claimed in claim 1, wherein Ring A is an optionally-substituted benzene or pyridine ring;

Ring B is a benzene or cyclohexane ring optionally substituted by a C_{1-6} alkoxy group, or is a tetrahydroisoquinoline or isoindoline ring formed along with R^2 bonded thereto;

Z is a C_{6-14} aryl, C_{3-10} cycloalkyl, piperidyl, thienyl, furyl, pyridyl, thiazolyl, indanyl or indolyl group optionally having from 1 to 3 substituents selected from a halogen atom, a formyl group, a halogeno-C_{1-6} alkyl group, a C_{1-6} alkoxy group, a C_{1-6} alkyl-carbonyl group, an oxo group and a pyrrolidinyl group;

D is a C_{1-6} alkylene group;

G is a chemical bond, or a C_{1-6} alkylene group optionally having a phenylene group and optionally substituted by a phenyl group;

R^1 is (a) a hydrogen atom, (b) a C_{1-6} alkyl, C_{2-6} alkenyl, C_{6-14} aryl or C_{7-14} aralkyl group optionally substituted by substituent(s) selected from (1) a halogen atom, (2) a nitro group, (3) an amino group optionally substituted by one or two substituents selected from a C_{1-6} alkyl-carbonyl group, a C_{6-14} aryl-carbonyl group, a C_{1-6} alkyl group, a C_{1-6} alkyloxy-carbonyl group, a C_{7-14} aralkyloxy-carbonyl group, a C_{1-6} alkyl-sulfonyl

group and a C_{6-14} aryl-sulfonyl group, (4) (i)a C_{1-6} alkyl group optionally substituted by a hydroxy group, a C_{1-6} alkyl-carbonyl group, a C_{6-14} aryl-carbonyl group, a carboxyl group or a C_{1-6} alkoxy-carbonyl group, (ii) a phenyl group optionally substituted by a hydroxy group, (iii) a benzoyl group, or (iv) a hydroxy group optionally substituted by a mono- or di-C_{1-6} alkylamino-carbonyl group, (5) a C_{3-6} cycloalkyl group, (6) a phenyl group optionally substituted by a hydroxy group or a halogeno-C_{1-6} alkyl group, and (7) a thienyl group, a furyl group, a thiazolyl group, an indanyl group, an indolyl or a benzyloxycarbonylpiperidyl group, or (c) an acyl group;

R^2 is (1) an unsubstituted amino group, (2) a piperidyl group, or (3) an amino group optionally having one or two substituents selected from (i) a benzyl group, (ii) a C_{1-6} alkyl group optionally substituted by an amino or phenyl group, (iii) a mono- or di-C_{1-6} alkyl-carbamoyl or -thiocarbamoyl group, (iv) a C_{1-6} alkoxy-carbonyl group, (v) a C_{1-6} alkyl-sulfonyl group, (vi) a piperidylcarbonyl group, and (vii) a C_{1-6} alkyl-carbonyl group optionally substituted by a halogen atom or an amino group;

E is -CO-, -CON(R^a)-, -N(R^a)CO (in which R^a is a hydrogen atom or a C_{1-6} alkyl group); and

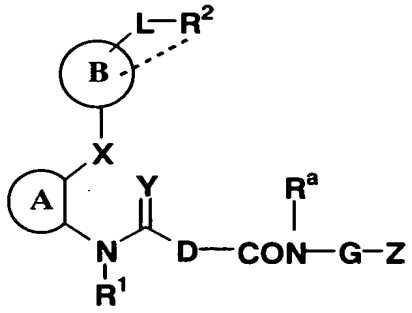
L is a C_{1-6} alkylene group optionally interrupted by -O- and optionally substituted by a C_{1-6} alkyl group.

15. A Compound as claimed in claim 1, wherein Z is a

phenyl group optionally substituted by a halogen atom; D is a C_{1-6} alkylene group; G is a C_{1-6} alkylene group; R^1 is (a) a C_{1-6} alkyl or C_{7-14} aralkyl group optionally substituted by substituent(s) selected from (1) a hydroxy group, (2) a phenyl group, (3) a thienyl, furyl, thiazolyl, indanyl, indolyl or benzyloxycarbonylpiperidyl group, and (4) an amino group optionally substituted by a C_{1-6} alkyl-carbonyl, C_{6-14} aryl-carbonyl, C_{1-6} alkyl-sulfonyl or C_{6-14} aryl-sulfonyl group, or (b) an acyl group; R^2 is an unsubstituted amino group; E is $-CON(R^a)-$; L is a C_{1-6} alkylene group; and Y is two hydrogen atoms.

16. A prodrug comprising a compound of claim 1 or its salt.

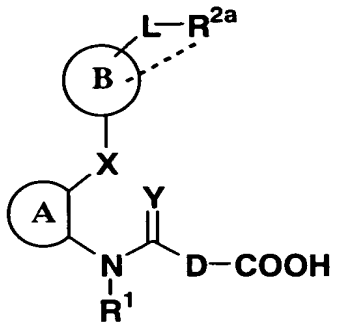
17. A method for producing a compound of a formula (I-a):



(I-a)

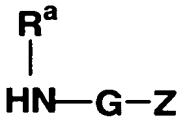
wherein the symbols have the same meanings as in claim 1, or a salt thereof, which comprises reacting a compound of a formula

(IIa):



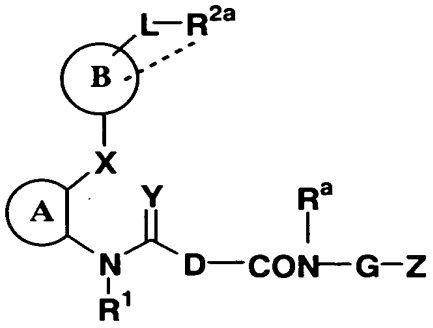
(IIa)

wherein R^{2a} represents an optionally-protected, optionally-substituted amino group; and the other symbols have the same meanings as in claim 1, or its reactive derivative or salt with a compound of a formula (III):



(III)

wherein the symbols have the same meanings as in claim 1, or its salt to give a compound of a formula (Ia-a):



(Ia-a)

wherein the symbols have the same meanings as above, or its salt, optionally followed by de-protecting it.

18. A pharmaceutical composition comprising a compound of claim 1 or its salt.

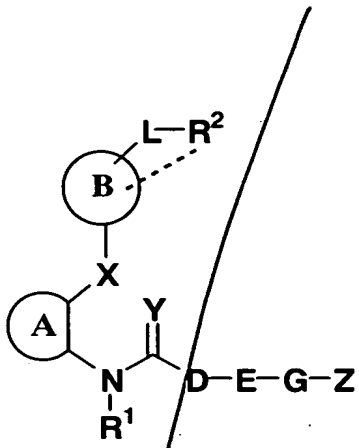
19. The pharmaceutical composition as claimed in claim 18, which is a somatostatin receptor function-regulating agent.

20. The pharmaceutical composition as claimed in claim 18, of which the somatostatin receptor function-regulating agent is a somatostatin receptor agonist.

21. The pharmaceutical composition as claimed in claim 18, which is for preventing or treating diabetes, obesity, complications of diabetes, or intractable diarrhea.

22. A method for regulating the somatostatin receptor function, which comprises administering a compound of a formula

(I):



(I)

wherein Ring A represents an optionally-substituted aromatic ring; Ring B represents an optionally-substituted cyclic hydrocarbon group; Z represents an optionally-substituted cyclic group; R^1 represents a hydrogen atom, an optionally-substituted hydrocarbon group, an optionally-substituted heterocyclic group, or an acyl group; R^2 represents an optionally-substituted amino group; D represents a chemical bond or a divalent group; E represents -CO-, -CON(R^a)-, COO-, -N(R^a)CON(R^b)-, -N(R^a)COO-, -N(R^a)SO_2-, -N(R^a)-, -O-, -S-, -SO- or -SO_2- (in which R^a and R^b each independently represent a hydrogen atom or an optionally-substituted hydrocarbon group); G represents a chemical bond or a divalent group; L represents (1) a chemical bond or (2) a divalent hydrocarbon group optionally having from 1 to 5 substituents selected from;

(i) a C_{1-6} alkyl group,

(ii) a halogeno-C_{1-6} alkyl group,

(iii) a phenyl group,

(iv) a benzyl group,

(v) an optionally-substituted amino group,

(vi) an optionally-substituted hydroxy group, and

(vii) a carbamoyl or thiocarbamoyl group optionally substituted by:

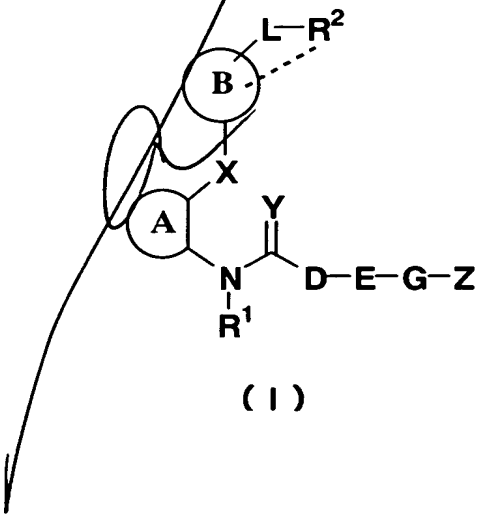
<1> a C_{1-6} alkyl group,

<2> an optionally-substituted phenyl group, or

<3> an optionally-substituted heterocyclic group,

and optionally interrupted by -O- or -S-; X represents an oxygen atom, an optionally-oxidized sulfur atom, an optionally-substituted nitrogen atom, or an optionally-substituted divalent hydrocarbon group; Y represents two hydrogen atoms, an oxygen atom or a sulfur atom; .... means that R^2 may be bonded to the atom on Ring B to form a ring, or its salt.

23. Use of a compound of a formula (I):



(I)

wherein Ring A represents an optionally-substituted aromatic ring; Ring B represents an optionally-substituted cyclic hydrocarbon group; Z represents an optionally-substituted cyclic group; R^1 represents a hydrogen atom, an optionally-substituted hydrocarbon group, an optionally-substituted heterocyclic group, or an acyl group; R^2 represents an optionally-substituted amino group; D represents a chemical bond or a divalent group; E represents -CO-, -CON(R^a)-, COO-, -N(R^a)CON(R^b)-, -N(R^a)COO-, -N(R^a)SO_2-, -N(R^a)-, -O-, -S-, -SO- or -SO_2- (in which R^a and R^b each independently represent a hydrogen atom or an optionally-substituted hydrocarbon group); G represents a chemical bond or a divalent group; L represents (1) a chemical bond or (2) a divalent hydrocarbon group optionally having from 1 to 5 substituents selected from;

(i) a C_{1-6} alkyl group,

(ii) a halogeno-C_{1-6} alkyl group,

(iii) a phenyl group,

(iv) a benzyl group,

(v) an optionally-substituted amino group,

(vi) an optionally-substituted hydroxy group, and

(vii) a carbamoyl or thiocarbamoyl group optionally substituted by:

<1> a C_{1-6} alkyl group,

<2> an optionally-substituted phenyl group, or

<3> an optionally-substituted heterocyclic group,

and optionally interrupted by -O- or -S-; X represents an oxygen atom, an optionally-oxidized sulfur atom, an optionally-substituted nitrogen atom, or an optionally-substituted divalent hydrocarbon group; Y represents two hydrogen atoms, an oxygen atom or a sulfur atom; ..... means that R^2 may be bonded to the atom on Ring B to form a ring, or its salt for producing a pharmaceutical composition for regulating the somatostatin receptor function.